

CLAIMS

1 What is claimed is:

- 1 1. A method for program data transfer reporting; comprising the steps of:
2 (a) compiling a source program to a platform-independent bytecode;
3 (b) executing the program, wherein the program passes data implicitly using
4 pointers;
5 (c) tracing accesses to memory for generating a trace;
6 (d) analyzing the trace; and
7 (e) generating memory use profile data based on the trace.
- 1 2. A method as recited in claim 1, wherein the accesses to memory relate to load
2 and store instructions.
- 1 3. A method as recited in claim 1, wherein the trace includes a map of all memory
2 accessed during execution of a single function.
- 1 4. A method as recited in claim 1, wherein the step of analyzing the trace includes
2 determining where memory transfers take place between domains of a
3 partitioned system.
- 1 5. A method as recited in claim 1, wherein the use profile data includes memory
2 use behavior of portions of the program.
- 1 6. A computer program product for program data transfer reporting; comprising the
2 steps of:
3 (a) computer code for compiling a source program to a platform-independent
4 bytecode;
5 (b) computer code for executing the program, wherein the program passes data
6 implicitly using pointers;

- 7 (c) computer code for tracing accesses to memory for generating a trace;
- 8 (d) computer code for analyzing the trace; and
- 9 (e) computer code for generating memory use profile data based on the trace.

1 7. A computer program product as recited in claim 6, wherein the accesses to
2 memory relate to load and store instructions.

1 8. A computer program product as recited in claim 6, wherein the trace includes a
2 map of all memory accessed during execution of a single function.

1 9. A computer program product as recited in claim 6, wherein the computer code
2 for analyzing the trace includes computer code for determining where memory
3 transfers take place between domains of a partitioned system.

1 10. A computer program product as recited in claim 6, wherein the use profile data
2 includes memory use behavior of portions of the program.

1 11. A system for program data transfer reporting; comprising the steps of:
2 (a) logic for compiling a source program to a platform-independent bytecode;
3 (b) logic for executing the program, wherein the program passes data implicitly
4 using pointers;
5 (c) logic for tracing accesses to memory for generating a trace;
6 (d) logic for analyzing the trace; and
7 (e) logic for generating memory use profile data based on the trace.

1 12. A system as recited in claim 11, wherein the accesses to memory relate to load
2 and store instructions.

1 13. A system as recited in claim 11, wherein the trace includes a map of all memory
2 accessed during execution of a single function.

1 14. A system as recited in claim 11, wherein the logic for analyzing the trace
2 includes logic for determining where memory transfers take place between
3 domains of a partitioned system.

1 15. A system as recited in claim 11, wherein the use profile data includes memory
2 use behavior of portions of the program.